UNITED STATES PATENT AND TRADEMARK OFFICE

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/629,479
Filing Date: July 28, 2003
Appellant(s): BRIN ET AL.

Viktor Simkovic (Reg. No 56, 012)
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed2/12/2010 appealing from the Office

action mailed 6/24/2009.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

37-45, 49, 51-57, 63-74, and 77-89

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS."

New grounds of rejection (if any) are provided under the subheading "NEW

GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims

contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

20030212666	BASU	11-2003
6243713	Nelson	6-2001

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1,

148 USPQ 459 (1966), that are applied for establishing a background for

determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 37-45, 49, 51-57, 63-74 and 77-89 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 20030212666 (hereinafter Basu) in view of US 6243713 (hereinafter Nelson).

As for claim 37 Basu discloses: receiving by a network interface or an input device of the computer system, a search query comprising a plurality of search terms from a user (See figure 3 #302 and paragraph 0032), where the search query further includes a plurality of user-selected operators associated with one of the search terms and where the plurality of operators comprise a same operator repeated multiple times (See paragraph 0033) of the search query (See paragraph 0043); broadening by a processor of the computer system, the one of the search terms based on the plurality of user-selected operators to produce a broadened search query; (See paragraphs, 0033, 0038 and 0041). Where broadening the one of the search term comprises(See paragraph 0033 and 0038).and executing by the processor a search using the broadened search query (See paragraph 0041).

Basu however does not explicitly disclose broadening the one of the search terms to an extent determined by a number of times the same operator is repeated; however does disclose broadening the one of the search terms to an extent determined by a number of times the same operator is repeated; (See column 7 lines 15-25). It would have been obvious to an artisan of ordinary skill in the pertinent at the time the invention was made to have incorporated the teaching of Nelson into the system of Basu. The modification would have been

obvious because the two references are concerned with the solution to problem

query broadening and data retrieval ,therefore there is an implicit motivation to

combine these references. In other words, the ordinary skilled artisan, during

his/her quest for a solution to the cited problem, would look to the cited

references at the time the invention was made. Consequently, the ordinary

skilled artisan, would have been motivated to combine the cited references since

Nelsons teaching would enable users of the Basu system to explicitly have

operators different from other operator along with the ability to index results and

database data..

As for claim 38 the rejection of claim 37 is incorporated and further Basu

discloses: where the search query further includes a user-selected delimiter

associated with another one of the search terms that indicates that the other one

of the search terms should not be broadened (See paragraph 0038).

As for claim 39 Basu discloses: receiving by a network interface or an

input device of the computer system a search query comprising a plurality of

search terms; broadening, by a processor of the computer system one of the

plurality of search terms; excluding by the processor the broadened one of the

plurality of search terms from the search query; executing by the processor a

search based on the search query after excluding the broadened one of the

plurality of search terms provide search results; and evaluating by the processor

the search results relative to the excluded search term using categorical or

clustered distinctions (See paragraphs 0043 and 0004).

As for claim 40 the rejection of claim 37 is incorporated and further Basu

discloses: where broadening the one of the search terms comprises:

determining a meaning associated with the first one of the search terms (See

paragraph 0004 and 0011).

As for claim 41 the rejection of claim 40 is incorporated and further Basu

discloses: where broadening the first one of the search terms comprises:

determining a related concept based on the meaning (See paragraph 0004 and

0011).

As for claim 42 the rejection of claim 37 is incorporated, and further Basu

discloses: where broadening the one of the search terms comprises: modifying,

replacing, supplementing, removing or restating the one of the search terms (See

paragraph 0034).

As for claim 43 the rejection of claim 37 is incorporated and further Basu

discloses: where broadening the one of the search terms comprises: selecting a

broadening search term associated with the one of the search terms from a set of

words having a synonymous, alternate spelling, common root, or similar

semantic meaning (See paragraph 0041).

As for claim 44 the rejection of claim 37 is incorporated and further Basu

discloses presenting at least one broadened search term associated with the first

one of the search terms as at least one of a static list, a menu of selectable

search terms, a set of checkboxes or a list of selectable search terms; and

receiving a selection from the presented at least broadened search term (See

paragraph 0038).

As for claim 45 the rejection of claim 37 is incorporated and further Basu

discloses: where broadening the one of the search terms comprises: presenting

at least one broadened search characteristic associated with the one of the

search terms as a hyperlink; and forming the broadened search query responsive

to a selection of the hyperlink by the user (See paragraph 0038).

As for claim 49 Basu discloses: one or more instructions for receiving a

search query comprising a plurality of search terms from a user, wherein the

search query includes multiple symbols which define a user-assigned strength of

broadening associated with one of the search terms of the search query (See

paragraph 0038); one or more instructions for broadening the one of the search

terms to an extent determined by the user-assigned strength to produce a

broadened search query where a number of the multiple symbols determines the

extent to which the one of the search terms is broadened ; and one or more

instructions for executing a search based on the broadened search query (See paragraph 0038).

As for claim 51 the rejection of claim 49 is incorporated and further Basu discloses: where the search query further includes a user-selected delimiter associated with another one of the search terms that indicates that the other one of the search terms should not be broadened (See paragraph 0038).

As for claim 52 the rejection of claim 49 is incorporated and further Basu discloses: where the one or more instructions for broadening the one of the search terms comprises: one or more instructions for determining a meaning associated with the one of the search terms (See paragraph 0004 and 0011).

As for claim 53 the rejection of claim 52 is incorporated and further Basu discloses: where the one or more instructions for broadening the one of the search terms comprises: one or more instructions for determining a related concept based on the meaning (See paragraph 0004 and 0011).

As for claim 54 the rejection of claim 49 is incorporated and further Basu discloses: where the one or more instructions for broadening the first one of the

search terms comprises: modifying, replacing, supplementing, removing or

restating the first one of the search terms (See paragraph 0034).

As for claim 55 the rejection of claim 49 is incorporated and further Basu

discloses: where the one or more instructions for broadening the one of the

search terms comprises: one or more instructions for selecting a broadening

search term associated with the one of the search terms from a set of words

having a synonymous, alternate spelling, common root, or similar semantic

meaning (See paragraph 0041).

As for claim 56 the rejection of claim 49 is incorporated and further Basu

discloses: one or more instructions for presenting at least one broadened search

term associated with the one of the search terms as at least one of a static list, a

menu of selectable search terms, a set of checkboxes or a list of selectable

search terms; and one or more instructions for receiving, from the user a

selection from the presented at least broadened search term from the user (See

paragraph 0038)..

As for claim 57 the rejection of claim 49 is incorporated and further Basu

discloses: where the one or more instructions for broadening the one of the

search terms comprises: one or more instructions for presenting at least one

broadened search characteristic associated with the first one of the search terms

as a hyperlink; and one or more instructions for forming the broadened search

query responsive to a selection of the hyperlink by the user (See paragraph 0038).

As for claim 60 the rejection of claim 58 is incorporated and further Nelson discloses: where the search query further includes a user-selected delimiter associated with a second one of the search terms that indicates that the second one of the search terms should not be broadened and where the user-selected delimiter comprises a second symbol that is different than the first symbol (See figure 11a).It would have been obvious to an artisan of ordinary skill in the pertinent at the time the invention was made to have incorporated the teaching of Nelson into the system of Basu. The modification would have been obvious because the two references are concerned with the solution to problem query broadening and data retrieval , therefore there is an implicit motivation to combine these references. In other words, the ordinary skilled artisan, during his/her quest for a solution to the cited problem, would look to the cited references at the time the invention was made. Consequently, the ordinary skilled artisan, would have been motivated to combine the cited references since Nelsons teaching would enable users of the Basu system to explicitly have operators different from other operator along with the ability to index results and database data.

As for claim 61 the rejection of claim 58 is incorporated and further Nelson discloses: where the at least one user-selected operator comprises a plurality of operators and where the plurality of operators comprise the first symbol repeated multiple times (See column 7 lines 15-25). It would have been obvious to an artisan of ordinary skill in the pertinent at the time the invention was made to have incorporated the teaching of Nelson into the system of Basu.The modification would have been obvious because the two references are concerned with the solution to problem query broadening and data retrieval , therefore there is an implicit motivation to combine these references. In other words, the ordinary skilled artisan, during his/her quest for a solution to the cited problem, would look to the cited references at the time the invention was made. Consequently, the ordinary skilled artisan, would have been motivated to combine the cited references since Nelsons teaching would enable users of the Basu system to explicitly have operators different from other operator along with the ability to index results and database data.

As for claim 63 the rejection of claim 49 is incorporated and further Nelson discloses: where the first symbol comprises one of a graphical or character symbol (See figure 11b).

As for claim 64 the rejection of claim 51 is incorporated and further Nelson discloses: where the user-selected delimiter comprises a second symbol that is different than the first symbol (See column 7 lines 25-35).

Claims 65-74 are system claims corresponding to the method of claims 1,38,64,40-45,61,63 respectively and are thus rejected for the same reasons as set forth in the rejection of claims 1,38,64,40-45,61,63.

As for claim 77 the rejection of claim 39 is incorporated and further discloses: determining a meaning associated with the one of the plurality of search terms and determining a related concept based on the meaning.

As for claim 78 the rejection of claim 39 is incorporated and further Basu discloses: modifying, replacing, supplementing, removing or restating the one of the plurality of search terms (See paragraph 0043).

As for claim 79 the rejection of claim 39 is incorporated and further Basu discloses: selecting a broadening search term associated with the one of the plurality of search terms from a set of words having a synonymous, alternate spelling, common root, or similar semantic meaning (See paragraphs 0033, 0034)

As for claim 80 BASU discloses: : receiving by a network interface or an input device of the computer system, a search query comprising a plurality of search terms from a user (See figure 3 #302 and paragraph 0032), where the search query further includes a plurality of user-selected operators associated with one of the search terms and where the plurality of operators comprise a same operator repeated multiple times (See paragraph 0033) of the search query (See paragraph 0043); broadening by a processor of the computer system, the one of the search terms based on the plurality of user-selected operators to produce a broadened search query; (See paragraphs, 0033, 0038 and 0041). Where broadening the one of the search term comprises receiving by the network interface or the input device, selection of a subset of hyperlinks of the set of hyperlinks to select a subset of the broadened search terms; (See paragraph 0033 and 0038).and executing by the processor a search using the broadened search query (See paragraph 0041).

Basu however does not explicitly disclose broadening the one of the search terms to an extent determined by a number of times the same operator is repeated; however does disclose broadening the one of the search terms to an extent determined by a number of times the same operator is repeated; (See column 7 lines 15-25). It would have been obvious to an artisan of ordinary skill in the pertinent at the time the invention was made to have incorporated the teaching of Nelson into the system of Basu. The modification would have been obvious because the two references are concerned with the solution to problem

query broadening and data retrieval ,therefore there is an implicit motivation to combine these references. In other words, the ordinary skilled artisan, during his/her quest for a solution to the cited problem, would look to the cited references at the time the invention was made. Consequently, the ordinary skilled artisan, would have been motivated to combine the cited references since Nelsons teaching would enable users of the Basu system to explicitly have operators different from other operator along with the ability to index results and database data..

Claims 81-84 are method claims corresponding to the method of claims 77-79 respectively and are thus rejected for the same reasons as set forth in the rejection of claims, 77-79.

Claims 85-89 are method claims corresponding to the method of claims 1, 77-79 respectively and are thus rejected for the same reasons as set forth in the rejection of claims, 1, 77-79.

(10) Response to Argument

This Examiner's answer will address the arguments in the order in which they appear in the appeal brief.

Arguments (1,10) claims (37, 40-43, 65, 66 and 69-72): For example, BASU and NELSON do not disclose or suggest broadening, using one or more processors associated with a computer system, one of the search terms

based on a plurality of user-selected operators to produce a broadened search query, where broadening the one of the search terms comprises broadening the one of the search terms to an extent determined by a number of times a same operator is repeated, as recited in claim 37. The Examiner admits that BASU does not disclose this feature and relies on col. 7, lines 15-25 of NELSON for allegedly disclosing this feature (final Office Action, p. 3). Appellants disagree with the Examiner's interpretation of NELSON.

This section of NELSON discloses that an optional process to increase the robustness of a multimedia retrieval pipeline is to add type-specific query tokens to any or all components that are in a query. For example, additional tokens may be used to represent other words similarly spelled to query keywords, or that have similar meanings, or other images of similar shape, color, or texture. This query expansion can be done by default or at the discretion of the user via query operators. In addition, query expansion can add tokens of one component type in response to the presence of tokens of another type.

Assuming that the Examiner is relying on the tokens as allegedly corresponding to an operator, as recited in claim 37 (a point that Appellants do not concede), this section of NELSON does not disclose or suggest that one of the tokens is repeated, let alone that a broadening of one of the search terms is done to an extent determined by a number of times a token is repeated, as would be required by claim 37 based on the Examiner's interpretation of NELSON. Therefore, this section of NELSON does not disclose or suggest broadening, using one or more processors associated with a computer system, one of the

search terms based on a plurality of user-selected operators to produce a

broadened search query, where broadening the one of the search terms

comprises broadening the one of the search terms to an extent determined by a

number of times a same operator is repeated, as recited in claim 37.

In response to argument 1: examiner submits that Examiner is entitled

to give claim limitations their broadest reasonable interpretation in light of the

specification. Interpretation of Claims-Broadest Reasonable Interpretation:

During patent examination, the pending claims must be 'given the broadest

reasonable interpretation consistent with the specification.' Applicant always has

the opportunity to amend the claims during prosecution and broad interpretation

by the examiner reduces the possibility that the claim, once issued, will be

interpreted more broadly than is justified. In re Prater, 162 USPQ 541,550-51

(CCPA 1969). In this case Applicants argument can be essentially summed up

as neither BASU nor Nelson disclose: search terms based on a plurality of user-

selected operators to produce a broadened search query, where broadening the

one of the search terms comprises broadening the one of the search terms to an

extent determined by a number of times a same operator is repeated, However

as applicant admits Nelson does in fact disclose that additional tokens may be

used to represent other words similarly spelled to query keywords, or that have

similar meanings, or other images of similar shape, color, or texture. This query

expansion can be done by default or at the discretion of the user via query

operators. In addition, query expansion can add tokens of one component type in

response to the presence of tokens of another type. This is the definition of

expanding a query. Each token broadens the search by adding to the scope of

the search not only the terms that are included in the original query but terms that

are similar but not the same, spelled different or simply related. The numbers of

terms added to the query Depends on the number of tokens present in the

expansion. Explicitly stated in column 7 lines 30-45 is that if a user presents a

query with the term sunset the query will be expanded depending on the number

of tokens to added colors, luminance, and phonemes thus increasing the

likelihood that the user will get information they want. (See column 7 lines 30-45

of Nelson).

Arguments(2, 15) claims (85-89): Therefore, even if BASU were to be

combined with NELSON, the combination would not disclose or suggest each of

the features of claim 37. Further, even if for the sake of argument, the

combination of BASU and NELSON could be fairly construed to disclose or

suggest each of the features of claim 37, Appellants assert that the reasons for

combining BASU and NELSON do not satisfy the requirements of 35 U.S.C. §

103. Appellants submit that the Examiner's allegation is clearly insufficient for

establishing a prima facie case of obviousness with respect to claim 37. The

Examiner's statement is merely a conclusory statement of an alleged benefit of

the combination of BASU and NELSON. Such conclusory statements have been

repeatedly held to be insufficient for establishing a primafacie case of obviousness. In this respect, Appellants rely upon KSR International Co. v. Teleflex Inc., 550 U.S. 398 (2007) (citing In re Kahn, 441 F.3d 977, 988 (Fed. Cir. 2006)), where it was held that rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. In this case, no such articulated reasoning has been provided with respect to claim 37.

For example, the Supreme Court in KSR noted that the analysis supporting a rejection under 35 U.S.C. § 103 should be made explicit. See M.P.E.P. § 2143. Exemplary rationales that may support a conclusion of obviousness include: (A) Combining prior art elements according to known methods to yield predictable results; (B) Simple substitution of one known element for another to obtain predictable results; (C) Use of known technique to improve similar devices (methods, or products) in the same way; (D) Applying a known technique to a known device (method, or product) ready for improvement to yield predictable results; (E) "Obvious to try" - choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success; (F) Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations are predictable to one of ordinary skill in the art; and (G) Some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference

teachings to arrive at the claimed invention. The Examiner did not indicate which

of the above-noted rationales (or another rationale) the Examiner is employing to

support the alleged conclusion of obviousness with respect to claim 37.

In response to argument (2): Examiner submits applicants arguments

should not be persuasive for 2 reasons. First the examiners own language in the

reasons for combining are a clear indication of the rationale used by the

examiner. For instance, Applicant listed exemplary rationales A through G.

Rationale G cited by applicant states "Some teaching, suggestion, or motivation

in the prior art that would have led one of ordinary skill to modify the prior art

reference or to combine prior art reference teachings to arrive at the claimed

invention"

Examiner's reason for combing state in part "The modification would have

been obvious because the two references are concerned with the solution to

problem query broadening and data retrieval ,therefore there is an implicit

motivation to combine these references." Accordingly, it seems that examiner

has at the very least stated that the suggestion of the references that they are

implicitly involved in solving the same problem. Moreover, The rationale to

support a conclusion that the claim would have been obvious is that "a person of

ordinary skill in the art would have been motivated to combine the prior art to

achieve the claimed invention and that there would have been a reasonable

expectation of success." DyStar Textilfarben GmbH & Co. Deutschland KG v.

C.H. Patrick Co., 464 F.3d 1356, 1360, 80 USPQ2d 1641, 1645 (Fed. Cir. 2006).

The Courts have made clear that the The motivation to combine may be implicit
and may be found in the knowledge of one of ordinary skill in the art, or, in some
cases, from the nature of the problem to be solved. Id. [A]n implicit motivation to
combine exists not only when a suggestion may be gleaned from the prior art as
a whole, but when the improvement' is technology- independent and the
combination of references results in a product or process that is more desirable,
for example because it is stronger, cheaper, cleaner, faster, lighter, smaller, more
durable, or more efficient. Because the desire to enhance commercial
opportunities by improving a product or process is universal-and even
commonsensical we have held that there exists in these situations a motivation
to combine prior art references even absent any hint of suggestion in the
references themselves. In such situations, the proper question is whether the
ordinary artisan possesses knowledge and skills rendering him capable of
combining the prior art references." Id. at 1368, 80 USPQ2d at 1651.

Argument (3) and argument 11 claims 67 and 68: Moreover, claim 38 is
patentable over BASU and NELSON, whether taken alone or in any reasonable
combination, for reasons of its own. For example, claim 38 recites that the search
query further includes a user-selected delimiter associated with another one of
the search terms that indicates that the other one of the search terms should not
be broadened. BASU and NELSON, whether taken alone or in any reasonable
combination, do not disclose or suggest this feature. The Examiner relies on
paragraph [0038] of BASU for allegedly disclosing this feature (final Office Action,

p. 4). Appellants disagree with the Examiner's interpretation of BASU. This

section of BASU discloses an adaptation module that attempts to refine the

search results a~, queries that are repeated over time. The adaptation module is

capable of modifying a query expansion module, a sub-query processing module,

and a merging module according to user and system feedback. For example, if a

user indicated that the sub-query term "smoke" is not relevant to a "rocket

launch" query, the adaptation module may assign a lower probability of relevance

to the "smoke" sub-query for future iterations of the "rocket launch" query. The

parametric learning techniques of the adaptation module may use a generative

approach, including probabilistic models and discriminate approaches, such as

kernel machines, support vector machines, and neural networks.

In response to argument (3): examiner submits that. Examiner is entitled

to give claim limitations their broadest reasonable interpretation in light of the

specification. Interpretation of Claims-Broadest Reasonable Interpretation:

During patent examination, the pending claims must be 'given the broadest

reasonable interpretation consistent with the specification.' Applicant always has

the opportunity to amend the claims during prosecution and broad interpretation

by the examiner reduces the possibility that the claim, once issued, will be

interpreted more broadly than is justified. In re Prater, 162 USPQ 541,550-51

(CCPA 1969). In this case a delimiter is simply a marking of the end. In the case

of the claim language it marks the end of the use in broadening of whatever is

attached to the user selection. Moreover the claims do not state that the delimiter

has to be directly correlated to the original query. Applicant argues that since the

modification takes place in a sub query it is not longer an indication that a term

should be broadened. Once a user selects that smoke is not related then during

there will no longer be any broadening based on the term smoke.

Arguments (4 12, 15) claims (73,85-89): For example, claim 44 recites

that broadening the one of the search terms comprises presenting at least one

broadened search term associated with the one of the search terms as at least

one of a static list, a menu of selectable search terms, a set of checkboxes or a

list of selectable search terms and receiving, from the user, a selection from the

presented at least one broadened search term. BASU and NELSON, whether

taken alone or in any reasonable combination, do not disclose or suggest these

features. The Examiner relies on paragraph [0038] of BASU for allegedly

disclosing these features (final Office Action, pp. 5-6). Appellants disagree with

the Examiner's interpretation of BASU. This section of BASU discloses

presenting search results to the user and that the user indicates if the result is

acceptable. If the search result does not yield the required information the

process control passes to an adapting operation. The adapting operation

modifies the search process in an attempt to increase the relevance of the

search results, based on user feedback. The adaptation may be serial, by having

the user provide feedback over a series of search iterations, or parallel, by the

user providing a large number of positive and negative examples to retrain the

model. For example, in response to the query "beautiful evening," the user may indicate that the user does not like the system returning beach images, and in response, the system may exclude a "beach" sub-query from subsequent iterations of the search query. Therefore, this section of BASU discloses providing search results to a user, receiving feedback about the search results, and adjusting the broadening of the search query in response to the feedback. However, in the method disclosed by BASU the user is never presented with broadened search terms. Rather, the user is presented with the search results. The user, therefore, cannot make a selection of a presented broadened term. Rather, the user can only indicate whether the user likes or dislikes returned search results.

In response to argument (4): examiner submits that Initially examiner notes that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See In re Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); In re Merck & Co., 800 F.2d 1091,231 USPQ 375 (Fed. Cir. 1986). In this case BASU does disclose iterations but more importantly Nelson also disclosed that expansion is also an automatic thing will add tokens based on the presence of other tokens. Moreover the "Test of obviousness is not whether features of secondary reference may be bodily incorporated into primary reference's structure, nor whether claimed invention is expressly suggested in any one or all of references; rather, test is what combined teachings of references

would have suggested to those of ordinary skill in art." In re Keller, Terry, and Davies,

208 USPQ 871 (CCPA 1981).

Arguments (5, 13,14) claims (74, 80-84): For example, claim 45 recites

that broadening the one of the search terms comprises presenting at least one

broadened search characteristic associated with the one of the search terms as a

hyperlink and forming the broadened search query_ responsive to a selection of

the hyperlink by the user. BASU and NELSON, whether taken alone or in any

reasonable combination, do not disclose or suggest these features. Paragraph

[0038] of BASU is reproduced above. This section of BASU discloses an

adaptation module that attempts to refine the search results as queries that are

repeated over time. The adaptation module is capable of modifying a query

expansion module, a sub-query processing module, and a merging module

according to user and system feedback. For example, if a user indicated that the

sub-query term "smoke" is not relevant to a "rocket launch" query, the adaptation

module may assign a lower probability of relevance to the "smoke" sub-query for

future iterations of the "rocket launch" query. This section of BASU does not

disclose, suggest, or even mention hyperlinks. This section of BASU also does

not disclose or suggest presenting at least one broadened search characteristic

to a user. Rather, this section of BASU discloses that a user may indicate that a

particular sub-query is not relevant to a query, by providing feedback regarding

returned search results (e.g., see paragraphs [0052]-[0055] of BASU).

In response to argument (5): examiner submits that Examiner is

entitled to give claim limitations their broadest reasonable interpretation in light of

the specification. Interpretation of Claims-Broadest Reasonable Interpretation:

During patent examination, the pending claims must be 'given the broadest

reasonable interpretation consistent with the specification.' Applicant always has

the opportunity to amend the claims during prosecution and broad interpretation

by the examiner reduces the possibility that the claim, once issued, will be

interpreted more broadly than is justified. In re Prater, 162 USPQ 541,550-51

(CCPA 1969). In this case Applicants argument can be essentially summed up

as neither BASU nor Nelson disclose: search terms based on a plurality of user-

selected operators to produce a broadened search query, where broadening the

one of the search terms comprises broadening the one of the search terms to an

extent determined by a number of times a same operator is repeated, However

as applicant admits Nelson does in fact disclose that additional tokens may be

used to represent other words similarly spelled to query keywords, or that have

similar meanings, or other images of similar shape, color, or texture. This query

expansion can be done by default or at the discretion of the user via query

operators. In addition, query expansion can add tokens of one component type in

response to the presence of tokens of another type. This is the definition of

expanding a query. Each token broadens the search by adding to the scope of

the search not only the terms that are included in the original query but terms that

are similar but not the same, spelled different or simply related. The numbers of

terms added to the query Depends on the number of tokens present in the

expansion. Explicitly stated in column 7 lines 30-45 is that if a user presents a

query with the term sunset the query will be expanded depending on the number

of tokens to added colors, luminance, and phonemes thus increasing the

likelihood that the user will get information they want. (See column 7 lines 30-45

of Nelson).

Argument (6) claims 39, 77-79: For example, BASU and NELSON do not

disclose or suggest excluding, using one or more processors associated with a

computer system, a broadened one of a plurality of search terms from a search

query, and evaluating, using one or more processors associated with the

computer system, the search results relative to the excluded search term using

categorical or clustered distinctions, as recited in claim 39. The Examiner relies

on paragraphs [0043] and [0004] of BASU for allegedly disclosing the features of

claim 39 (final Office Action, p. 4). Appellants disagree with the Examiner's

interpretation of BASU.

This section of BASU discloses that a query expansion operation may be

defined by the user or developed by the system through user interaction. The

query to sub-query expansion may be one-to-one, one-to-many, many-to-one, or

many-to-many. An example of a many-to-many query is shown in Fig. 4 of

BASU, which depicts the query "outdoor" mapped to the sub-queries "trees" and

"sky" and the query "beach" mapped to sub-queries "sky" and "sand." This

section of BASU does not disclose or suggest excluding one of the broadened

search terms from the search query. Rather, this section of BASU discloses

mapping a search term to an additional search term, mapping a search term to

multiple additional search terms, mapping multiple search terms to one additional

search term, and mapping multiple search terms to multiple search terms. This

section of BASU does not disclose or suggest, for example, mapping a search

term to an additional search term, and then excluding that search term and the

additional search term from the search query, as would be required by claim 39

based on the Examiner's interpretation of BASU.

Since this section of BASU does not disclose or suggest excluding a

broadened one of a plurality of search terms from a search query, this section of

BASU cannot disclose or suggest evaluating search results relative to an

excluded search term using categorical or clustered distinctions.

This section of BASU does not disclose or suggest excluding, using one or

more processors associated with a computer system, a broadened one of a

plurality of search terms from a search query, and evaluating, using one or more

processors associated with the computer system, the search results relative to

the excluded search term using categorical or clustered distinctions, as recited in

claim 39.

Therefore, this section of BASU does not disclose or suggest excluding,

using one or more processors associated with a computer system, a broadened

one of a plurality of search terms from a search query, and evaluating, using one

or more processors associated with the computer system, the search results

relative to the excluded search term using categorical or clustered distinctions, as recited in claim 39.

Furthermore, even if it assumed, for the sake of argument, that BASU does disclose that terms from sub-queries do not have to be used, this does not correspond to the specifically recited feature of excluding a search term that has been broadened from a search query, as recited in claim 39, because a sub-query of BASU does not correspond to one of the search terms of the search query (i.e., the sub-query does not correspond to a search term from the search query). Rather, a sub-query of BASU is derived from a search term. For example, the query "beach" is expanded to the sub-queries "sky," "water," and "sand" (see paragraph [0041] of BASU). Therefore, not using "sky," "water," or "sand" would not correspond to excluding "beach" from the original query. For at least the foregoing reasons, Appellants submit that claim 39 is patentable over BASU and NELSON, whether taken alone or in any reasonable combination. Accordingly, Appellants respectfully request that the rejection of claim 39 under 35 U.S.C. § 103(a) based on BASU and NELSON be reversed. Claims 77-79 depend from claim 39. Therefore, these claims are patentable over BASU and NELSON, whether taken alone or in any reasonable combination, for at least the reasons set forth above with respect to claim 39. Accordingly, Appellants respectfully request that the rejection of claims 77-79 under 35 U.S.C. § 103(a) be reversed.

In response to argument (6): Examiner submits that Applicants

argument can be summed up as the BASU reference does not disclose

excluding a broadened one of a plurality of search terms from a search query,

and evaluating, using one or more processors associated with the computer

system, the search results relative to the excluded search term using categorical

or clustered distinctions Applicant always has the opportunity to amend the

claims during prosecution and broad interpretation by the examiner reduces the

possibility that the claim, once issued, will be interpreted more broadly than is

justified. In re Prater, 162 USPQ 541,550-51 (CCPA 1969). In this case as

discussed above with respect to the delimiter claim language in this case simply

states excluding, using one or more processors associated with a computer

system, a broadened one of a plurality of search terms from a search query, and

evaluating, using one or more processors associated with the computer system,

the search results relative to the excluded search term using categorical or

clustered distinctions this means a normal broadening that would occur shouldn't

occur. Moreover the claims do not state that the delimiter has to be directly

correlated to the original query. Applicant argues that since the modification

takes place in a sub query it is not longer an indication that a term should be

broadened. Once a user selects that smoke is not related then during there will

no longer be any broadening based on the term smoke.

Argument (7) claims 49, 52-55, and 63:

For example, BASU and NELSON do not disclose or suggest one or more instructions to broaden the one of the search terms of a search query to an extent determined by a user-assigned strength to produce a broadened search query, where a number of multiple symbols in the search query determines the extent to which the one of the search terms is broadened, as recited in claim 49. The Examiner relies on paragraph [0038] of BASU for allegedly disclosing the features of claim 49 (final Office Action, p. 6). Appellants disagree with the Examiner's interpretation of BASU. Paragraph [0038] of BASU is reproduced above. This section of BASU discloses an adaptation module that attempts to refine the search results as queries that are repeated over time. The adaptation module is capable of modifying a query expansion module, a sub-query processing module, and a merging module according to user and system feedback. For example, if a user indicated that the sub-query term "smoke" is not relevant to a "rocket launch" query, the adaptation module may assign a lower probability of relevance to the "smoke" sub-query for future iterations of the "rocket launch" query. The parametric learning techniques of the adaptation module may use a generative approach, including probabilistic models and discriminate approaches, such as kernel machines, support vector machines, and neural networks.

This section of BASU does not disclose or suggest a number of multiple symbols in a search query that determine the extent to which one of the search

terms of the search query is broadened. In fact, this section of BASU does not
even mention symbols that indicate that a query_ term is to be broadened.

Therefore, this section of BASU does not disclose or suggest one or more
instructions to broaden the one of the search terms of a search query_ to an
extent determined by a user-assigned strength to produce a broadened search
query, where a number of multiple symbols in the search query_ determines the
extent to which the one of the search terms is broadened, as recited in claim 49.
NELSON does not overcome the deficiencies of BASU set forth above with
respect to claim 49. In fact, the Examiner did not cite NELSON in the rejection of
claim 49. The Examiner also did not provide any articulated reasoning or rational
analysis for combining BASU and NELSON with respect to the features recited in
claim 49. Therefore, the rejection of claim 49 under 35 U.S.C. § 103(a) based on
BASU and NELSON is not a proper rejection under 35 U.S.C. § 103(a).

In response to argument (7): examiner submits Examiner is entitled to give
claim limitations their broadest reasonable interpretation in light of the
specification. Interpretation of Claims-Broadest Reasonable Interpretation:
During patent examination, the pending claims must be 'given the broadest
reasonable interpretation consistent with the specification.' Applicant always has
the opportunity to amend the claims during prosecution and broad interpretation
by the examiner reduces the possibility that the claim, once issued, will be
interpreted more broadly than is justified. In re Prater, 162 USPQ 541,550-51

(CCPA 1969). In this case BASU does disclose the claim limitations. BASU

discloses query expansion that is adaptive and can be modified by user

interactions and queries (See paragraph 0038). Moreover paragraph 0038

discloses a score called "probability of relevance" that is adjusted based on

whether or not the term should be used (essentially a user assigned strengh).

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner

in the Related Appeals and Interferences section of this examiner's answer.

Conclusion

Claims 37-45, 49, 51-57, 63-74, 77-89 are properly rejected under 35

U.S.C. §103(a). In light of the foregoing arguments, the Examiner respectfully

requests that the Honorable Board of Appeals sustain the rejections.

Respectfully submitted,
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